REMARKS/ARGUMENTS

These remarks are made in response to the Office Action of 07 January 2009 (Office Action). As this response is timely filed before the expiration of the 3-month shortened statutory period, no fees are believed to be due. However, the Examiner is authorized to charge any deficiencies or credit any overpayments to Deposit Account No. 50-3610.

Status of the claims

Claims 1-5, and 12-23 were examined. Claims 6-11 have been previously cancelled. Claims 1, 12, and 19 have been rewritten in the present amendment. Claims 1-5, and 12-23 remain in the application.

REJECTIONS

Claims 1-5 and 12 were rejected under 35 U.S.C. § 101 as claiming non-statutory subject matter. With regard to claim 1, Examiner indicated that, since it is well known to implement a processor in either hardware or software, and the specification does not limit the processor to a hardware implementation, the processor may be entirely software. Accordingly, Applicant has amended claim 1 to limit the embodiment of the processor to an inherent hardware implementation. Support for this amendment is in the inherent nature of a processor as admitted by the Examiner; a processor may be hardware or software, and Application is merely limiting the claim to a well-known inherent feature of a processor.

With regard to claim 12, Application has amended the claim to indicate that the manager is a computing "device," which indicates the manager is a hardware entity. The term "device" is most commonly used to refer to a machine or other physical entity. Support for this amendment may be found in paragraph 0009 of the specification.

Claim 19 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The term "body" was not tied explicitly to the n-body problem to indicate that the body was one of the n-bodies. Applicant has amended claim 19 to clarify.

Claims 1-5, 12-21, and 23 were rejected under 35 U.S.C. § 103(a) over Ho in view of Neiman (U.S. Pat. Pub. No. 20030237084).

This section encompasses all pending independent claims 1, 12, 13, and 19, which have a similar scope, generally being the distributed computing solving of a multi-body problem and when one of the computers which has been assigned a task or unit of work fails to provide results, the results may be approximated or estimated instead. Claim 1 is exemplary and recites:

> "wherein said processor is configured to determine a client failure to return said results based upon at least one condition selected from a group of conditions consisting of: a receipt of a message indicating that the client is no longer connected to the network, a receipt of a message from the client indicating that said result is not forthcoming, and an expiration of a previously defined time delay for said client to provide said result."

Ho was cited for the general concept of distributed computing being used to solve an n-body problem. Ho does not address node failure. Neiman was cited as showing the processor operable to approximate the results of one node when the node fails to return the results, citing paragraph 0126 and paragraph 0111. Applicant has read both references and finds that Neiman does not show the features claimed by Applicant.

Neiman is directed to a distributed computing environment where users can send tasks to a backbone (300) composed of multiple worker nodes (155). An assigned task may be broken down in "descendent" tasks, which are sub-tasks which need to be performed to finish the overall or parent task. There may be multiple descendent tasks. These descendent tasks produce "intermediate" results, which are necessary to complete higher levels of the task. The intermediate results are also referred to as "partial" results at, for example, paragraph 0123.

Neiman describes a caching method so that these intermediate results completed by descendent tasks are made available to other tasks. Thus, what Neiman is describing is not the approximation or estimation of results when a node fails to return them. In fact, Neiman explicitly states that if there is a failure of a node, the task is re-assigned to another node in paragraph 0084. There Neiman states that the service manager, in the event of a node failure, prompts the scheduler to re-schedule the tasks with other nodes. This directly contradicts the assertion made in the Rejection that Neiman shows the use of estimation of results when a node fails to return results. Neiman, in fact, operates conventionally by re-assigning tasks when a node fails. The sections cited by the Rejection refer to the caching of successfully produced results so that other tasks which require those intermediate results may access them. Neiman does not show or suggest the use of estimation of results in the event of a node failure as claimed by Applicant. Accordingly, the combination of Neiman with Ho does not show or render obvious Applicant's claims as claimed in claims 1, 12, 13, and 19. The same applies for claims 2-5, 14-18, 20-21, and 23 as the cover similar subject matter, further refining the structure of the distributed computing as means of detecting node failure.

Claim 22 was rejected under 35 U.S.C. 103(a) under Ho in view of Examiner's Official Notice. Claim 22, being dependent on claim 19, is believed to be allowable as dependent on an allowable independent claim.

CONCLUSION

Applicant has shown how the rejections should be withdrawn for reasons elaborated upon above. Further, the claims have been amended, which are fully supported by the Application. Applicant believes that the current claims 1-5 and 12-23 are in a condition for allowance, which action is respectfully requested.

The Applicants request that the Examiner call the undersigned **(954-745-0743)** if clarification is needed on any matter within this Reply, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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